

ABSTRACT OF THE DISCLOSURE

A muscle fatigue level measuring device is provided which estimates muscle fatigue without being influenced by distances
5 between electrodes. The muscle fatigue level measuring device measures a resistance component and a reactance component in a body part as impedance in the body part by impedance component measuring means 21, measures a muscular tissue effective length
10 in the body part by muscular tissue effective length measuring means 22, computes biologically equivalent model parameters including extracellular fluid resistivity and distribution membrane capacitance based on these resistance component, reactance component and muscular tissue effective length by
15 biologically equivalent model parameter computation means 23, and determines a muscle fatigue level based on the ratio of the extracellular fluid resistivity to the distribution membrane capacitance by muscle fatigue level determination means 24.